

## SEQUENCE LISTING

<110> ELMEN, JOACIM  
 WAHLESTEDT, CLAES  
 LIANG, ZICAI  
 SORENSEN, ANDERS  
 ORUM, HENRIK  
 KOCH, TROELS

<120> SHORT INTERFERING RNA (SIRNA) ANALOGUES

<130> 64190(71432)

<140> 10/550,152  
 <141> 2005-09-20

<150> PCT/DK04/000192  
 <151> 2004-03-22

<150> DK PA 2003 00442  
 <151> 2003-03-21

<150> 60/456,888  
 <151> 2003-03-21

<150> DK PA 2003 01625  
 <151> 2003-10-31

<150> DK PA 2004 00145  
 <151> 2004-01-30

<160> 62

<170> PatentIn Ver. 3.3

<210> 1  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 1  
 cuuacgcuga guacuucgat t

<210> 2  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 2  
 cuuacgcuga guacuucgat t

21

<210> 3  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 3  
 ucgaaguacu cagcguaagt t

21

<210> 4  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>  
<221> modified\_base  
<222> (1)  
<223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (20)..(21)  
<223> Beta-D-oxy LNA monomer

<400> 4  
tcgaaguacu cagcguaagt t 21

<210> 5  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Combined DNA/RNA Molecule:  
Synthetic oligonucleotide

<220>  
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>  
<221> modified\_base  
<222> (1)  
<223> phosphate-t/Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (20)..(21)  
<223> Beta-D-oxy LNA monomer

<400> 5  
tcgaaguacu cagcguaagt t 21

<210> 6  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>  
<221> modified\_base  
<222> (1)  
<223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (2)..(3)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (7)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (10)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (13)..(14)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (18)..(19)  
 <223> Beta-D-oxy LNA monomer

<400> 6  
 cttcgctagt acttcgatt

19

<210> 7  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (7)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (10)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (16)  
 <223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (20)..(21)  
<223> Beta-D-oxy LNA monomer

<400> 7  
tcgaagtact cagcgtaagt t

21

<210> 8  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<220>  
<221> modified\_base  
<222> (1)  
<223> phosphate-t/Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (7)  
<223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (10)  
<223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (16)  
<223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (20)..(21)  
<223> Beta-D-oxy LNA monomer

<400> 8  
tcgaagtact cagcgtaagt t

21

<210> 9  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Combined DNA/RNA Molecule:  
Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 9  
 uuuuucccu ucuucagaut t

21

<210> 10  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 10  
 aucugaagaa ggagaaaaat t

21

<210> 11  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 11  
 tuuuucuccu ucuucagaut t

21

<210> 12  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 12  
 aucugaagaa ggagaaaaat t

21

<210> 13  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (2)..(3)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (8)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (12)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (15)..(16)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 13  
 cttacgctga gtacttcgat t

21

<210> 14  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> 5-methylcytosine

<220>  
 <221> modified\_base  
 <222> (5)  
 <223> 5-methylcytosine

<220>  
 <221> modified\_base  
 <222> (7)  
 <223> 5-methylcytosine

<220>  
 <221> modified\_base  
 <222> (14)  
 <223> 5-methylcytosine

<220>  
 <221> modified\_base  
 <222> (17)  
 <223> 5-methylcytosine

<220>  
 <221> modified\_base  
 <222> (1)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 14  
 cttacgctga gtacttcgat t

21

<210> 15  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (2)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (4)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (6)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (8)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (10)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (12)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (14)  
 <223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (16)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (18)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 15  
 cttacgctga gtacttcgat t

21

<210> 16  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (2)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (5)  
 <223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (8)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (11)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (14)  
 <223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (17)  
 <223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 16  
 cttacgctga gtacttcgat t

21

```

<210> 17
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Combined DNA/RNA Molecule:
      Synthetic oligonucleotide

<220>
<223> Description of Artificial Sequence: Synthetic
      oligonucleotide

<220>
<221> modified_base
<222> (1)
<223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>
<221> modified_base
<222> (4)
<223> Beta-D-oxy LNA monomer

<220>
<221> modified_base
<222> (6)
<223> Beta-D-oxy LNA monomer

<220>
<221> modified_base
<222> (9)
<223> Beta-D-oxy LNA monomer

<220>
<221> modified_base
<222> (11)
<223> Beta-D-oxy LNA monomer

<220>
<221> modified_base
<222> (14)
<223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>
<221> modified_base
<222> (17)
<223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>
<221> modified_base
<222> (20)..(21)
<223> Beta-D-oxy LNA monomer

<400> 17
cuuacgcuga guacuucgat t

```

<210> 18  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (4)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (6)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (9)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (11)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (14)  
 <223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (17)  
 <223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 18  
 cuuacgcuga guacuucgat t

<210> 19  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Combined DNA/RNA Molecule:  
Synthetic oligonucleotide

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<220>  
<221> modified\_base  
<222> (2)  
<223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (3)..(8)  
<223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (9)  
<223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (10)  
<223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (11)  
<223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (12)..(13)  
<223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (14)  
<223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (15)..(21)  
<223> Beta-D-oxy LNA monomer

<400> 19  
ucgaagtact cagcgtaagt t

<210> 20  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Combined DNA/RNA Molecule:  
Synthetic oligonucleotide

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<220>  
<221> modified\_base  
<222> (2)  
<223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (4)  
<223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (6)  
<223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (8)  
<223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (10)  
<223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (12)  
<223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (14)  
<223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (16)  
<223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (18)  
<223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 20  
 ucgaagtact cagcgtaagt t

21

<210> 21  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (2)  
 <223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (5)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (8)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (11)  
 <223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (14)  
 <223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (17)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 21  
ucgaagtact cagcgtaagt t

21

<210> 22  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Combined DNA/RNA Molecule:  
Synthetic oligonucleotide

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<220>  
<221> modified\_base  
<222> (3)  
<223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (6)  
<223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (9)  
<223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (12)  
<223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (15)  
<223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (17)  
<223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (20)..(21)  
<223> Beta-D-oxy LNA monomer

<400> 22  
ucgaaguacu cagcguaagt t

21

<210> 23  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (2)  
 <223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 23  
 ucgaaguacu cagcguaagt t

21

<210> 24  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (3)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 24  
 ucgaaguacu cagcguaagt t

21

<210> 25  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> Description of Combined DNA/RNA Molecule:  
Synthetic oligonucleotide

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<220>

<221> modified\_base

<222> (5)

<223> Beta-D-oxy LNA monomer

<220>

<221> modified\_base

<222> (20)..(21)

<223> Beta-D-oxy LNA monomer

<400> 25

ucgaaguacu cagcguaagt t

21

<210> 26

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Combined DNA/RNA Molecule:  
Synthetic oligonucleotide

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<220>

<221> modified\_base

<222> (6)

<223> Beta-D-oxy LNA monomer

<220>

<221> modified\_base

<222> (20)..(21)

<223> Beta-D-oxy LNA monomer

<400> 26

ucgaaguacu cagcguaagt t

21

<210> 27

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Combined DNA/RNA Molecule:  
Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (8)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 27  
 ucgaaguacu cagcguaagt t

21

<210> 28  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (3)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (5)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (9)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (12)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (14)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (17)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 28  
 tgagagaaag cacagaaaat t

21

<210> 29  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 29  
 tgagagaaag cacagaaaat t

21

<210> 30  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 30  
 tuuucugugc uuucucucat t

21

<210> 31  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 31  
 ggagaggaa ggcaauuat t

21

<210> 32  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 32  
 uaaaugccu uccuacuct t

21

<210> 33  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 33  
 cugguacgau uucggugaut t

21

<210> 34  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 34  
 aucaccgaaa ucguaccagt t

21

<210> 35  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 35  
 acugucaaac ccgguaauut t

21

<210> 36  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 36  
 aaauaccggg uuugacagut t

21

<210> 37  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 37  
 gacaacuccu auucguagut t

21

<210> 38  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 38  
 acuacgaaua ggaguuguct t

21

<210> 39  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 39  
 uccagaacaa accaaacggt t

21

<210> 40  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 40  
 aaacaugcag aaaaugcugt t

21

<210> 41  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (9)  
 <223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 41  
 ucgaaguacu cagcguaagt t

21

<210> 42  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (10)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 42  
 ucgaaguact cagcguaagt t

21

<210> 43  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (11)  
 <223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 43  
 ucgaaguacu cagcguaagt t

21

<210> 44  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (12)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 44  
 ucgaaguacu cagcguaagt t

21

<210> 45  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (10)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 45  
 ucgaaguaca cagcguaagt t

21

<210> 46  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 46  
 gcugaccug aagucauct t

21

<210> 47  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (2)  
 <223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (3)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (7)  
 <223> 5-methylcytosine/Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (10)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (14)..(15)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 47  
 gctgacccug aagttcauct t

21

<210> 48  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 48  
 gaugaacuuc agggucagct t

21

<210> 49  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 49  
 ugagagaaag cacagaaaat t

21

<210> 50  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 50  
uuuucugugc uuucucucat t 21

<210> 51  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 51  
ctagcaaact gtcaaaccg gtaattttc 29

<210> 52  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 52  
ctaggaaaat taccgggttt gacagtttg 29

<210> 53  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Combined DNA/RNA Molecule:  
Synthetic oligonucleotide

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 53  
ggaugaggaa ggcaauuat t 21

<210> 54  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Combined DNA/RNA Molecule:  
Synthetic oligonucleotide

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 54  
uaaaauugccu uccucaucct t 21

<210> 55  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Combined DNA/RNA Molecule:  
Synthetic oligonucleotide

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 55  
cugguacgau uucggugaut t 21

<210> 56  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Combined DNA/RNA Molecule:  
Synthetic oligonucleotide

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 56  
aucaccgaaa ucguaccagt t 21

<210> 57  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Combined DNA/RNA Molecule:  
Synthetic oligonucleotide

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 57  
acugucaaac ccgguaauut t 21

<210> 58  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Combined DNA/RNA Molecule:  
Synthetic oligonucleotide

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 58  
aauuaccggg uuugacagut t 21

<210> 59  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Combined DNA/RNA Molecule:  
Synthetic oligonucleotide

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 59  
gacaacuccu auucguagut t 21

<210> 60  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Combined DNA/RNA Molecule:  
Synthetic oligonucleotide

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 60  
acuacgaaua ggaguuguct t 21

<210> 61  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (1)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> Beta-D-oxy LNA monomer

<400> 61  
 cuuacgcuga guacuucgat t

21

<210> 62  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Combined DNA/RNA Molecule:  
 Synthetic oligonucleotide

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (1)..(3)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (8)  
 <223> Beta-D-oxy LNA monomer

<220>  
 <221> modified\_base  
 <222> (12)  
 <223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (15)..(16)  
<223> Beta-D-oxy LNA monomer

<220>  
<221> modified\_base  
<222> (20)..(21)  
<223> Beta-D-oxy LNA monomer

<400> 62  
cttacgctga gtacttcgat t